pharma clinical cases

Part 1

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ANS
DIURETICS
AUTACOIDS

References :

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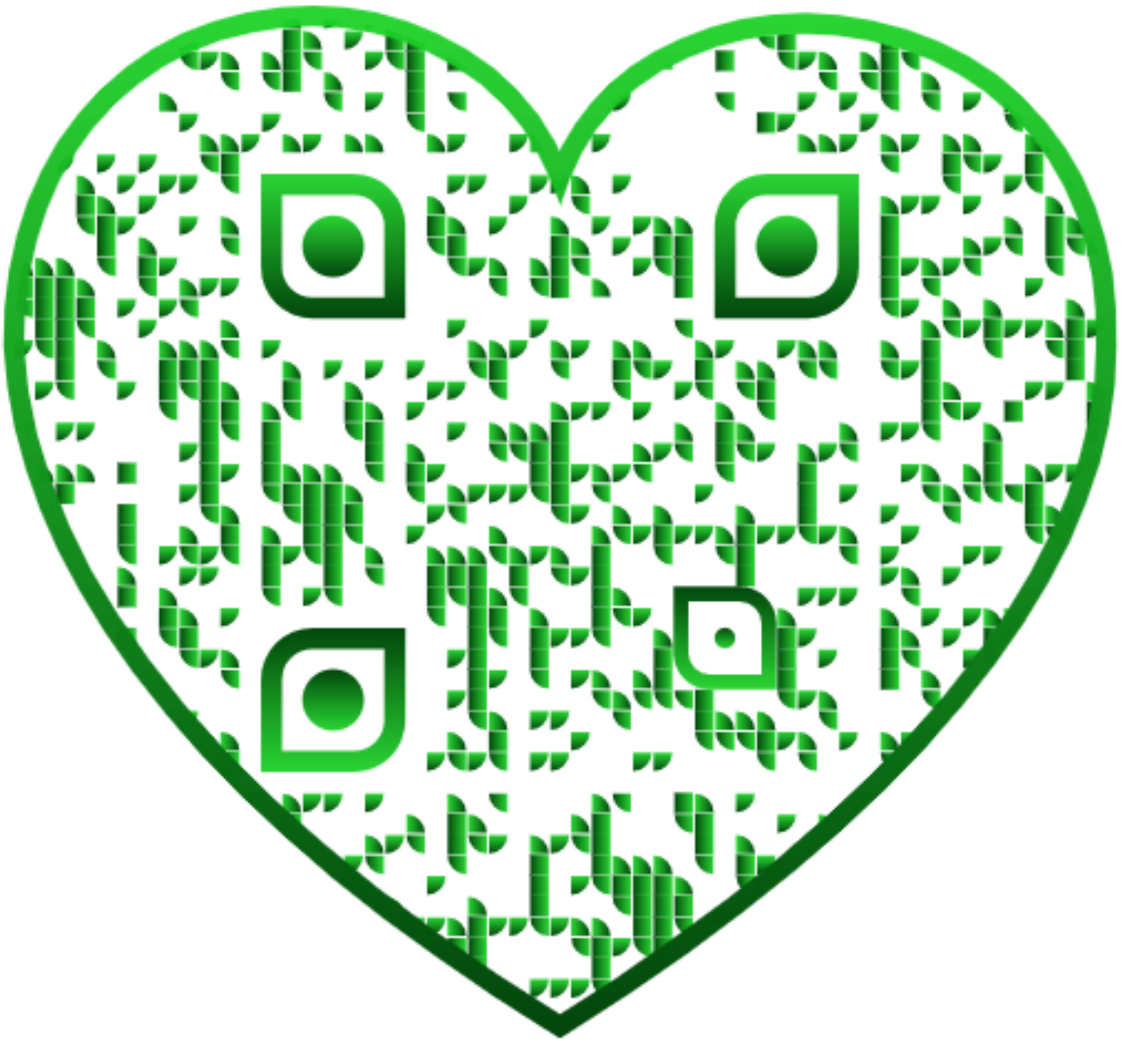


ANS CLINICAL CASES

التاريخ / / الموضوع

Pharmaclinical Cases

* Someone with anaphlactic shock → Adrenaline
I.M → Vastus lateralis → 1mL
→ V.C (α_1) & B.D (B_2)

* Someone with cardia arrest → Adrenaline
→ I.V → 1ml → ↑ heart activity (B_1)
& V.C (α_1) → with CPR

* Achild who has cough and cyanosis (B_2)
→ Adrenaline → S.C or Inhlation → B.D

* Someone with acute hypotension → N.A
→ Infusion → ↑ heartwork (B_1) & V.C (α_1)

* Someone with shock → Dopamine → Infusion
→ ↑ RBF & MBF (B_1) → ↑ Heart work (B_1)
→ V.C (α_1)

* Someone with Cardiogenic shock → Dobutamine
→ Infusion → ↑ H.work (B_1)

* Someone with bronchial asthma

- Salbutamol → B_2 agonist → Bronchodilitation → V.C (δ)
- Salmetrol → B_2 agonist
- Ipratropium → M3 antagonist → Bronchodilitation (δ) → ↓ mucous secretion

التاريخ / /

الموضوع

Glucoma

Physostigmine → M&N → Miosis

Carbachol → M&N → Miosis

Timolol → B-blockers

Betaxolol → B-blockers

* Someone with Xerostomia → Cevimillin → M_3 agonist → ↑ salivary secreation

* Someone with Mesethynea graves

- Neostegmine + atropin
- Pyridostigmine
- Edrophonium → Diagnosis

A.C.E Inhabitors

* Someone with alzuhimar disease → Donepezil → A.C.E Inhabitor

* Smokers → Vernicline

* Someone with organophosfate toxicity

- Atropin
- Parlioloxime
- diazepam

* Some one with atropin toxicity → Physostegmine

Pheochromocytoma

التاريخ / /

الموضوع

* Someone with COPD → Ipratropium
* ~~Someone~~ ~~with~~ Pregnanant woman with PreLabor contraction → Ritodrin → β_2 agonist → Urine relaxation
* Someone with orthostatic hypotension → Phenylephrin or Medodrine → α_1 agonist → V.C → ↑ B.P
* Someone with Nose congection and rhinitis → xylo & oxy metazolin → Nose drops → α_1 → V.C
* Someone with any muscle spasm in any muscle → Tizanidine → α_2 agonist → muscle relaxent
* & Akid with ADHD → ~~Ritalin~~ Methylpheniolate → Promote Dopamin & N.A relase & Prevent their reuptake → ↑ atention ↓ hyperkynesia
* Someone with nacroLepsy → Moola fenile → ↑ sympthatic work → ↑ alertanees
* Someone with Pheochromocytoma → Phenoxybenzamine & Propanold or Labeta lol → α & β blockers
* Someone with Urine retention

- Obstractive (stone, BPH, tumor) → Tamsulosin → α_{1a} & α_{1D} blocker
- Physiological (functional) → Bethanachol → M_3 agonist

/ / التاريخ ANS Clinical الموضوع

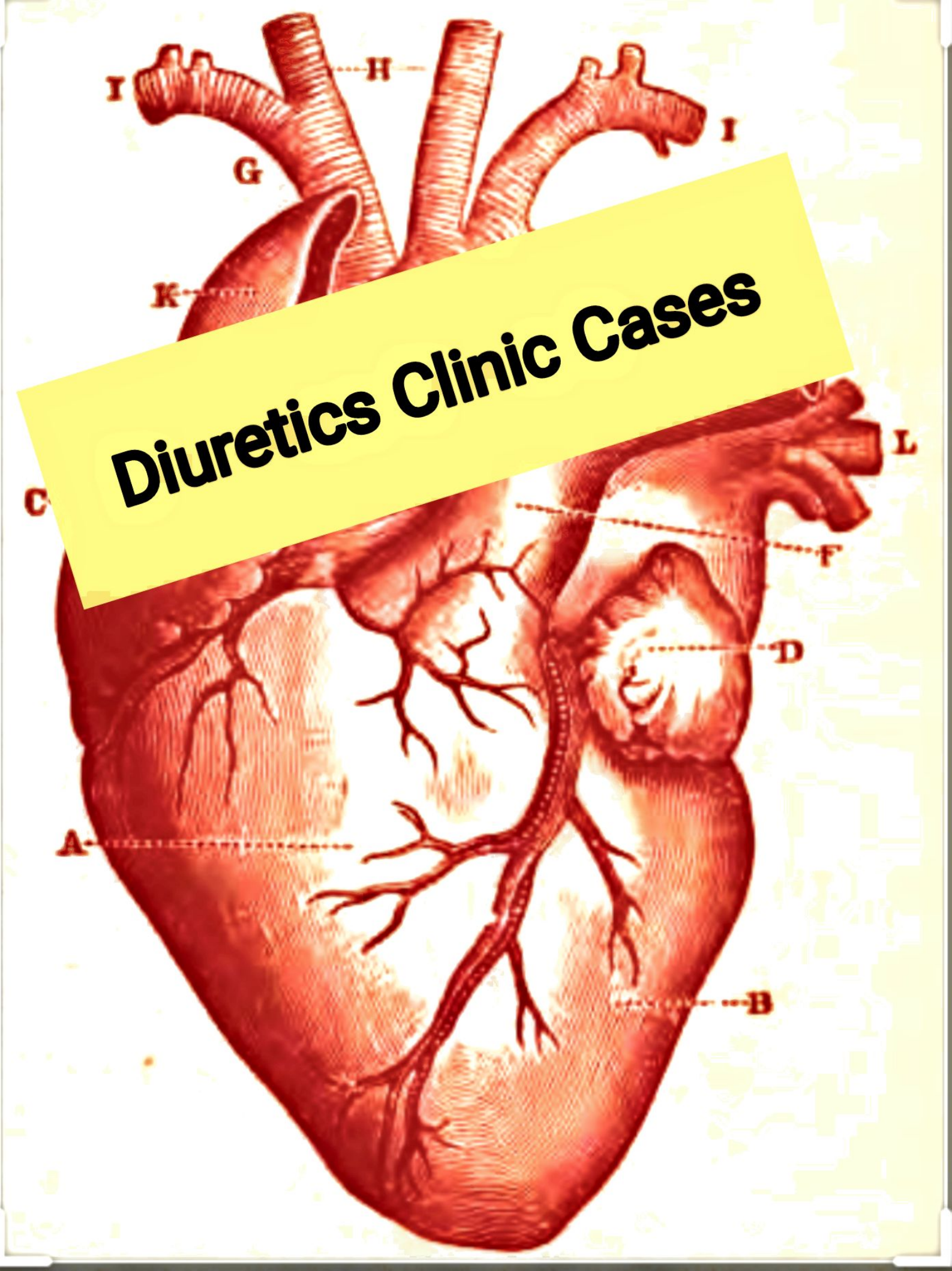
Cases

Hypertension

- Clonidin → α_2 agonist → ↓ sympathetic outflow → Renal Failure
- Prazosin & Doxazosin → α_1 blockers → V.D → Renal Failure
- Propranolol & Atenolol → β blockers → ↓CO, ↓Renin release, ↓N.A release → ↑Lipid Profile or hyperthyrodism
- Fenoldopam → D_1 agonist → V.D → RBF, MBF → Emergency
- α-methyl dopa → α_2 β_2 agonist → ↓ABP → Pregnant women

* Someone with C.H.F → Prazosin or Doxazosin → α_1 blocker → V.D → ↕ Pre & after Loade (there's stronger drugs)
* someone with BPH → Tamsulosin → α_1 blocker
* someone who has classic angina → Propanolol → B.B. → V.C for Intact coronary aa. ↓ H.work & Redistribution of blood
* someone with cardiac arrethmia → Propanolol → ↓ exatibility; Esmolol → In emergency ↓ A.V Conduction
* Eseophageal varices → Propanolol and Family → V.C For Portal v. → ↓ Liver blood Inflow → ↓ Blood going to systemic shunt

* Someone with diarhea → Lomotile (atropin f.)
→ M_3 antagonist → ↓ secreation & motility
* Someone with abdominal colic → hyoscin bytyl bromide (Buscopan) ← M_3 anta.
* Someone with Acutecystitis → Oxybutynin
→ muscrinic antagonist
* Someone with Urine Incontenance → Tolterodine
→ M_3 antagonist → Relaxition U.B wall and contraction For sphincters
* someone with Parkinsinoism → Benzatropine
→ Muscrinic antagonist → ↓ ach
* Someone with motion sickness → hyosin (scopolamine)
+ Antihystamine → Musconic antagonist
→ Block vestebullo cerebellar Pathway



Diuretics Clinic Cases

التاريخ / / Diuretics الموضوع
Clinical cases

* Someone with CHf and edema
  • We use Lazisfirone (combination of Loop & K Dure)
* someone with c.Renal filuar and edema
  Fursamide, Tursamide (Loop diuretics)
* Someone with D.M and edema
  Loop diuretics
* Someone with Liver chirosis & Edema
  Amiledrine | Spirinolactone or Eplerenone
* Someone with edema & hyperaldolorstronism (Cori's disease)
  Spirinolactone or Eplerenone
  Prim / secondary
* Pregnant women with LowerLimb edema (Physidogic)
  Elastic stockings and rising of Lower Limbs
* Someone with Essential heartFiluar with milal edema
  Hydrochlorthiazide or Indapimide
* Someone with edema & Nephrogenic Diabetes Insibidus ⟶ Hydrochlorothiazide
* Someone with Idiopathic calciurea
  We give him hydrochlorthiazide, but with normal saline to avoid dehydration & ↓Na

Autacoids
Clinical Cases

Pharmacology

التاريخ / / Autacoids الموضوع

Clinical cases

~~13/5/20~~

[1] Someone has allergy dueto any cause

- 1st generation
  - chlorPhinaramine
  - DiPhinahydramine
  - cyproheptadine
- 2nd generation
  - Lotaradine
  - Cetizen
  - Ketetofine

- Mechanism: cyproheptadine → H1 + M. agonist; Ketetofine → H1 agonist

* Someone with (emergancy) allergy ∴

1st choise → Adrenaline → I.M → ½ mg

2nd " → chlorPhanaramine → I.V → 10 mg

3rd " → hydrocortizon → I.V./I.M. → 200 mg

- Mechanism: B.D & V.D (V.C.) & ↓ Bronchial secreation

* Somone with motion sikness

1st choise → scoPolamine → Muscrinic R. antagonist on vestibulo ocular Path.

2nd choise → DiPhenhydramine / Promethazine → H1 & M.R. antagonist

* someone is angery all the time

BusPirone (Artianxity) → 5HT1A ~~antagonist~~ → ↓ CNS stimulation

there are drugs that have better effect

* (someone has migrane)

Tryptan family e.g sumatryptan → 5HT1B&D agonist → V.D

2

Pharmacology

التاريخ / / Autacoid الموضوع

Clinical Cases

- Note: we use [1] cyproheptadine [2] Propanolol [3] Verpamile [4] Pizotifen for migrane Prophlaxis
- Note [2] Ergotamine was used for migrane → 5-HTA_2 agonist
- * Ergotametrine is used for

After Laborty → 5-HT$_{A_2}$ agonist → Utrine contraction

Exessive menstrantion → 5-HTA_2 agonist → V.C

* someone with nausa & vomiting (after chemotherapy)

ONDASTERON or Tropisteron → 5 HT$_3$ antagonist → ↓ stimulation of CTZ

* Someone with nausa & vomiting (normal cases)

1st choise → Domeperidone → 5HT$_4$ agonist & D_2 antagonist

2nd choise → Metoclopermid → " " & " "

* someone with carcinoid syndrome

cyproheptidine → 5-HT antagonist → ↓ sertonin release

* someone who is depressed

~~Fluoxetine & Paroxetine~~ → Inhibit reaptake of sertonin

/ / التاريخ Autacoid الموضوع

Clinical cases

* Someone after opened heart operation or during hemodialysis

Efeprostol or Iliprost → Prostacycline agonist → ↓ Platlate agregation

* Some one with open angle glucoma

Latenoprost → PGfα agonist → ↑ aquous humor drinage

* Someone with Peptic Ulcer

Mesoproston → PGE1 agonist → ↑ mucous secreation in stomach

* Pregnant woman who needs abortion

Misoproston with mifeprost complex → PGE1 agonist & PGfα

→ ↑ Utrine contraction

* Infant with Transposition of greatarteries

Alprostadil → PGE1 agonist → V.D which keeps Ductus arteriosus opened for Gas exchange

* Infant with opened Ductus Arteriosus

Indomethazine → cox Inhabitor → No Production of PGs → V.C

* Someone with Irratibk bowel syndrome

Tegaserode → 5-HT agonist → ↑GIT motility

* A child with herdiatry Angioedema

Icatibant → B_2 antagonist → ↓ B.V & V. Permisibility

↓

Bradykinin B receptor

التاريخ / / الموضوع Autocoid

Clinical cases

* DinoProston Used For : → ↑Utrine contraction
  → Treatment of PeriPard V.D,

Mechanism PGE2 agonist

* someone with osteoartharitis or has Rchumatic Pain
* Treated with DiclePhenac Localy → cox Inhibator
* Adult girl with Pain combined with menstruation
  Treated with DiclePhinac or IbuProfen

Treatment of Acute Rhemuatic fever

1] Antibiotics

- 1st choise → benzylPencelline
- 2nd choise (In Pencline allergy) → Trimoxazol or erythromycin
- Treatment for a long time → BenzathinePencelline (L.A.Penc)

2] Anti Inflmatory drugs

- ARF with mild carditis → Asprin
- " " sever " → Preidenisolon